REMARKS

Claims 1, 3-11, 15, 17-19 and 21-22 are pending in the application. The Examiner's reconsideration of the objections and rejections in view of the amendments and remarks is respectfully requested.

The Examiner has indicated that duplicate Claim 14 has been renumbered as Claim 20. The Claim renumbering is reflected above in the Amendments to the Claims.

Claims 1-11 and 15-19 are rejected under 35 USC 101 as being directed to non-statutory subject matter. The Examiner stated essentially that Claims 1-11 and 15-19 fail to establish a practical application by producing a useful, concrete and tangible result.

Claims 1 and 15 are the independent claims among Claims 1-11 and 15-19. Claims 1 and 15 claim, *inter alia*, "extracting the requirements of the architectural software model from the tree, wherein the abstract use case corresponds to a feature of the architectural software model and the concrete use case corresponds to the requirements of the architectural software model; and determining a completeness of the requirements by triggering rules for objects of the architectural software model and determining whether the objects function according to the requirements."

Referring to Claims 1-11 and 15-19; In *Diamond v. Diehr*, 450 U.S. 175, 209 USPQ 1 (1981), the Court noted, "when [a claimed invention] is performing a function which the patent laws were designed to protect (e.g., transforming or reducing an article to a different state or thing), then the claim satisfies the requirements of Section 101." *Diehr*, 450 U.S. at 192. In Claims 1 and 15, a tree is created from an architectural software model. The creation of the tree is a reduction of the architectural software model; the tree is therefore believed to be a useful, tangible and concrete result of the application of the claimed limitations - for example, in the extraction of requirements and a determination of the requirements completeness. For example, consider the following:

> "[T]ransformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces 'a useful, concrete and tangible result' -- a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades." *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601.

It is important to note that a resulting use of the final share price for recording and reporting purposes, etc., is not recited in the claims of the patent at issue in *State Street*. It is enough for the result, e.g., a final share price or a tree, to be useful. A limitation explicitly claiming a use of the result is not needed to satisfy the requirements of 35 USC 101.

Thus, for the reasons given above, Claims 1 and 15 are believed to be directed to statutory subject matter and therefore satisfy 35 USC 101.

Claims 3-11 depend from Claim 1. Claims 17-19 depend from Claim 15. Claims 2 and 16 have been canceled. The dependent claims are believed to be allowable for at least the reasons given for Claims 1 and 15. For the foregoing reasons, Claims 1, 3-11, 15, and 17-19 are believed to be directed to statutory subject matter. The Examiner's reconsideration of the rejection is respectfully requested.

Claims 1-20 have been rejected under 35 U.S.C. §102(b) as being unpatentable over Galle (Johan Galle, "HOORA: A Method for Hierarchical Object-Oriented Requirements Analysis Satisfying ESA's Needs"). The Examiner stated essentially that Galle teaches all the limitations recited in Claims 1-20.

Claims 1 and 15 are the independent claims.

Claims 1 and 15 claim, *inter alia*, "creating, automatically, a tree comprising a root node corresponding to an abstract use case and at least one leaf node corresponding to one of an abstract use case and a concrete use case; importing the tree into a requirements tool; extracting the requirements of the architectural software model from the tree, wherein the abstract use case corresponds to a feature of the architectural software model and the concrete use case corresponds to the requirements of the architectural software model; and determining a completeness of the requirements by triggering rules for objects of the architectural software model and determining whether the objects function according to the requirements."

Galle teaches that an Object-Oriented model is used to generate a Software Requirements Document (see page 39, right column, second paragraph). Galle does not teach "determining a completeness of the requirements by triggering rules for objects of the architectural software model and determining whether the objects function according to the requirements" as claimed in Claims 1 and 15. Galle teaches that an architectural design is generated from model information (see page 39, right column, third paragraph). Galle further teaches that a completeness and consistency of the software requirements may be checked. Galle's mere suggestion that completeness and consistency of the software requirements may be checked fails to anticipate the claimed triggering of rules for objects of an architectural software model and determining whether the objects function according to the requirements, as claimed in Claim 1 and 15. Indeed, Galle fails to provide sufficient disclosure to support general statements of functionality much less the claimed limitations. Therefore, Galle fails to teach all the limitations of Claims 1 and 15.

Claims 3-11 depend from Claim 1. Claims 17-19 depend from Claim 15. Claims 2, 12-14, 16 and 20 have been canceled. The dependent claims are believed to be allowable for at least the reasons given for the respective independent claims.

At least Claims 10 and 11 and Claims 21 and 22 are believed to be allowable for additional reasons.

Claims 10 and 21 claim "detecting a cycle in the directed graph." Claims 11 and 22 claims "requesting an elimination of the cycle before proceeding with requirements extraction."

Galle teaches traceability links (see page 43, left column, first drawing). Galle does not teach detecting cycles as claimed in Claims 10 and 21, much less "requesting an elimination of the cycle before proceeding with requirements extraction" as claimed in Claims 11 and 22. Nowhere does Galle teach the identification of cycles, much less their elimination. Therefore, Galle fails to teach all the limitations of Claims 10, 11, 21 and 22.

The Examiner's reconsideration of the rejection is respectfully requested.

For the forgoing reasons, the application, including Claims 1, 3-11, 15, 17-19 and 21-22, is believed to be in condition for allowance. Early and favorable reconsideration of the case is respectfully requested.

Respectfully Submitted,

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